



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/517,146	12/07/2004	Thierry Bredy	121891	1184
25944	7590	05/21/2007		
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			EXAMINER GREGORY, BERNARR E	
			ART UNIT 3662	PAPER NUMBER
			MAIL DATE 05/21/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/517,146	<b>Applicant(s)</b> BREDY, THIERRY	
	<b>Examiner</b> Bernarr E. Gregory	<b>Art Unit</b> 3662	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 May 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**1. THE FINALITY OF THE PREVIOUS OFFICE ACTION, OF 29 MARCH 2007, IS  
HEREBY WITHDRAWN.**

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

On line 4 of independent claim 1, the term "aerodynamic center" is indefinite and unclear in context. Please see 37 CFR §1.75(d)(1).

On line 2 of claim 7, "the at least one section releasable on trajectory" lacks antecedent basis.

On lines 4-5 of claim 8, the phrase "able to slide" is indefinite and unclear in context in that it merely mentions potential action of sliding without clearly and definitely claiming that the action of sliding occurs. Similarly, on line 3 of claim 11, the phrase "able to slide" is indefinite and unclear in context.

Throughout claims 1-20; the uses of the term "control means" are indefinite and unclear in context. Please see 37 CFR §1.75(d)(1). The brief mention of the control means at page 5, lines 33-38 of the Specification and the illustration of the "control means" as item 7 in Figure 1a fail to make clear what the "control means" are other than some vague "microprocessor."

Dependent claims 2-19 are unclear in that they depend from unclear independent claim 1.

4. The Specification is hereby objected to under 37 CFR §1.77(b) and (c) for the lack of the necessary sectional headings as set forth in 37 CFR §1.77(b) and (c). In addition, the Specification is objected to under 37 CFR §1.71 for failing to teach one of ordinary skill-in-the-art how to make and to use the invention in that the claimed "control means" is not disclosed adequately as to how the "microprocessor" in the control means (see page 5, lines 33-38 of the Specification) is programmed, how it gathers sensed data, or how it determines the "required time" (page 5, line 37 of the Specification).

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 1-20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Please see the remarks in the objection to the Specification in section 4 above.

Art Unit: 3662

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1, 4, and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Orwig (U.S. Patent 46,490).

Insofar as unclear independent claim 1 may be understood, Orwig (U.S. Patent 46,490) makes at least one correction to the aerodynamic center of the projectile by the extensions of the “stem” in Orwig (U.S. Patent 46,490). Please note the fourth full paragraph in the left-hand column of the text of Orwig (U.S. Patent 46,490), which starts with the words “This inventions consists.” Applicant’s “aerodynamic center” is understood to mean the center of gravity of the projectile, so that in Orwig (U.S. Patent 46,490), when the “stem” is extended in flight the aerodynamic center is moved along the major axis of the projectile. Claim 1 claims that the correction is made by changing the length of the projectile in flight, which is matched by Orwig (U.S. Patent 46,490) having the “stem” extend “as soon as the projectile leaves the muzzle of the barrel” (fourth full paragraph in the left-hand column of the text of the reference). In addition, please note in the fourth full paragraph in the left-hand column of the text of Orwig (U.S. Patent 46,490) that the text mentions “rifled barrel” and “revolving motion of the projectile.” As for the claim 1 recitation that the “modification” is

"triggered by control means," this is read on the control of the gun that fires the projectile in Orwig (U.S. Patent 46,490).

With respect to the further limitations of dependent claim 4, there is a "relative translation" of the front portion of the Orwig (U.S. Patent 46,490) projectile with respect to the rear portion of the Orwig (U.S. Patent 46,490) projectile in that the "stem" of Orwig (U.S. Patent 46,490) moves relative to the front portion of the projectile. It is noted that which portion is considered to move with respect to which other portion is merely a matter of the choice of a frame of reference.

With respect to the further limitations of dependent claim 6, the "releasable linking means" could be any or all of the connecting hardware discussed in the right-hand column of the text of Orwig (U.S. Patent 46,490).

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


Chilowsky (U.S. Patent 3,292,879) is of interest in that the structure of an extending portion at the rear of projectile is similar to Applicant's invention and to the applied reference Orwig (U.S. Patent 46,490), and further in that Chilowsky (U.S. Patent 3,292,879) is very clear that the extending of the spindle with the stabilizing surfaces moves the "center of gravity of the projectile substantially toward the rear" (column 2, lines 11-26).

Art Unit: 3662

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bernarr E. Gregory whose telephone number is (571) 272-6972. The examiner can normally be reached on weekdays from 7:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas H. Tarcza, can be reached on (571) 272-6979. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Bernarr E. Gregory  
Primary Examiner  
Art Unit 3662